Chemistry I: Gas Laws: Reference Sheet

Pressure Units Equivalences: This is standard pressure in different units.
All of the following pressure units are equivalent to each other.

1 atmosphere (atm)	14.7 lbs/ in^2
0.760 meters of Hg	101,325 newtons/ m^2 (N/m^2)
76 cm of Hg	1.013 X 10^5 Pascals (Pa)
760 mm of Hg	101.3 X10^6 millipascals (mPa)
760 Torr	1013.25 millibars
29.92 in of Hg	33.9 ft of H_2O

Water Vapor Pressure

°C	mm	°C	mm	°C	mm	°C	mm
0.0	4.6	17.5	15.0	22.5	20.4	30.0	31.8
5.0	6.5	18.0	15.5	23.0	21.1	35.0	42.2
7.5	7.8	18.5	16.0	23.5	21.7	40.0	55.3
10.0	9.2	19.0	16.5	24.0	22.4	50.0	92.5
12.5	10.9	19.5	17.0	24.5	23.1	60.0	149.4
15.0	12.8	20.0	17.5	25.0	23.5	70.0	233.7
15.5	13.2	20.5	18.1	26.0	25.2	80.0	335.1
16.0	13.6	21.0	18.6	27.0	26.7	90.0	525.8
16.5	14.1	21.5	19.2	28.0	28.3	95.0	633.9
17.0	14.5	22.0	19.8	29.0	30.0	100.0	760.0

Universal Gas Constant (R):

$$0.082 \ \frac{(L)(atm)}{(mol.)(K)} \qquad 62.4 \ \frac{(L)(mm)}{(mol.)(K)}$$

$$82 \ \frac{(mL)(atm)}{(mol.)(K)} \qquad 62360 \ \frac{(mL)(mm)}{(mol.)(K)}$$